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Docket No: 1313/1H649-US1

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: David J. Smith et al.

Serial No.: 10/010,711 Art Unit: 1751

Confirmation No.: 2757

Filed: November 8, 2001 Examiner: P. Kumar

**For: CELLULOSE FIBERS HAVING LOW WATER RETENTION VALUE AND LOW CAPILLARY DESORPTION PRESSURE**

RESPONSE

Hon. Commissioner of  
Patents and Trademarks  
Washington, DC 20231

Sir:

In response to the January 3, 2003 Office Action, kindly consider the following remarks. Claims 1-138 are pending. Claims 1-7, 9-32, 38-52, and 80-138 have been withdrawn from consideration. Therefore, claims 8, 33-37, and 53-79 are at issue.

## Restriction Requirement

The Examiner has required restriction in this application among the claims of:

Group I: Claims 1-7, drawn to cellulose fibers;

Group II: Claims 8 and 33-79, drawn to crosslinked cellulose fibers;

Group III: Claims 9-22 and 87, drawn to an acquisition and distribution layer and an absorbent structure;

Group IV: Claims 23-31, drawn to a method of preparing cellulose fibers and cellulose fibers prepared by that method;

Group V: Claims 32 and 134, drawn to a method of preparing an absorbent structure;

Group VI: Claims 80-86, drawn to uncrosslinked cellulose fibers;

Group VII: Claim 88-125, drawn to a method of preparing crosslinked cellulose fibers;

Group VIII: Claims 126-133, drawn to a method of preparing uncrosslinked cellulose fibers; and

Group IX Claims 135-138, drawn to an absorbent core.

A careful search of the prior art relevant to the claims of Group II would develop the prior art relevant to the claims of the remaining groups, since all of the cellulose fibers are crosslinked and/or exhibit low median desorption pressures or are formed from crosslinked fibers. For example, the crosslinked cellulose fibers recited in claim 8 (of Group II) like the fibers recited in the claims of Group I, exhibit a low median desorption pressure. Furthermore, since claim 8 depends from claim 1, if claim 1 is patentable, so is claim 8.

Claims 33-79 of Group II similarly exhibit a low median desorption pressure. Accordingly, applicants respectfully request that the restriction requirement be withdrawn.

In the event the restriction requirement is not withdrawn, applicants respectfully request rejoinder of the groups of claims as indicated below.

A careful search of the prior art relevant to the claims of Groups I and II would develop the prior art relevant to the claims of Group III, since the acquisition and distribution layers and absorbent structures recited in the claims of Group III require the cellulose fibers described in the claims of Groups I and II. Therefore, if the claims of Groups I and II are patentable, so are the claims of Group III. Accordingly, applicants respectfully request rejoinder of claims 9-22 with the claims of Group I and claim 87 with the claims of Group II.

A careful search of the prior art relevant to the claims of Group IV and VII would develop the prior art relevant to the claims of Group V, since the methods of preparation recited in the claims of Group V require the fibers recited in the claims of Groups IV and VII. Therefore, if the claims of Groups IV and VII are patentable, so are the claims of Group V. Accordingly, applicants respectfully request rejoinder of claims 32 with the claims of Group IV and claim 134 with the claims of Group VII.

A careful search of the prior art relevant to the claims of Group II would develop the prior art relevant to the claims of Group VI, since the uncrosslinked fibers recited in the claims of Group VI are prepared from the crosslinked fibers recited in the claims of Group II. Accordingly, applicants respectfully request rejoinder of the claims of Group VI with the claims of Group II.

A careful search of the prior art relevant to the claims of Group II would develop the prior art relevant to the claims of Group VII, since the methods recited in the claims of Group VII produce the crosslinked fibers recited in the claims of Group II. Accordingly, applicants respectfully request rejoinder of the claims of Groups II and VII.

A careful search of the prior art relevant to the claims of Group VI would develop the prior art relevant to the claims of Group VIII, since the methods recited in claims of Group VIII produce the uncrosslinked fibers recited in the claims of Group VI. Accordingly, applicants respectfully request rejoinder of the claims of Groups VI and VIII.

A careful search of the prior art relevant to the claims of Group II would develop the prior art relevant to the claims of Group IX, since the absorbent core recited in the claims of Group IX includes reversible crosslinked fibers which are encompassed by the claims of Group II. Accordingly, applicants respectfully request rejoinder of the claims of Groups II and IX.

In summary, applicants respectfully request rejoinder of:

- (1) claims 9-22 of Group III with the claims of Group I;
- (2) claim 87 of Group III with the claims of Group II;
- (3) claim 32 of Group V with the claims of Group IV;
- (4) claims 134 of Group V with the claims of Group VII;
- (5) the claims of Groups VI, VII, and IX with the claims of Group II; and
- (6) the claims of Group VI with the claims of Group VIII.

In order to be fully responsive, applicants confirm their provisional election of the claims of Group II.

The Examiner also required election of a single crosslinking agent. Applicants confirm their election of saturated dicarboxylic acids, and in particular oxalic acid as the crosslinking agent.

**Rejection over Tang**

Claims 8, 33-37, and 53-79 have been rejected under 35 U.S.C. §103(a) as obvious over Tang et al. (U.S. Patent No. 5,728,771). Tang allegedly teaches durable press fabric finishing with a cellulose crosslinking system containing polyphosphinocarboxylic acid and an esterification catalyst. The esterification catalyst may be oxalic acid (col. 2, lines 36-40).

Tang does not disclose or suggest cellulose fibers crosslinked with oxalic acid as recited in the presently claimed invention. Rather in Tang, oxalic acid is used as a catalyst, i.e., a substance that modifies and increases the rate of a reaction *without being consumed in the process*. See the attached definition of catalyst. Therefore, the oxalic acid in Tang's process does not crosslink the cellulose fibers and Tang does not disclose or suggest cellulose fibers crosslinked with oxalic acid.

For the foregoing reason, Tang fails to render obvious claims 8, 33-37, and 53-79. Accordingly, applicants respectfully request withdrawal of this rejection.

**February 14, 2002 Information Disclosure Statement**

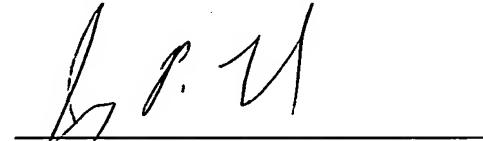
Applicants have not received an initialed copy of the Form PTO 1449 submitted with the Supplemental Information Disclosure Statement filed on February 14, 2002. A copy

of the Form PTO-1449 filed on February 14, 2002 is enclosed. In accordance with MPEP Sections 609 and 707.05(b), it is requested that each reference listed on the Form PTO-1449 be given thorough consideration and that it be cited of record in the prosecution history of the present application by initialing on the Form PTO-1449.

In view of the above remarks, it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

If there are any other issues remaining which the Examiner believes could be resolved through either a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

Respectfully submitted



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